

ARTHROPLASTY

CanMEDS roles and responsibilities

General Objectives

Upon completion of a rotation on the Arthroplasty Service, the learner must demonstrate knowledge of the etiology of disease and injury of the joints, and able to formulate a differential diagnosis. A knowledge base must exist to formulate a plan to effectively and efficiently order investigations to arrive at a diagnosis and formulate a treatment plan. The learner should be able to communicate the diagnosis/treatment plan to the patient/family, especially as it relates to establishing a sympathetic and effective professional relationship. These objectives apply both in the acute setting of trauma in the Emergency Department and in chronic conditions most commonly seen in the outpatient department.

Specific Objectives

At the completion of the rotation, the learner will have acquired the following competencies and will function effectively as:

I. MEDICAL EXPERT/CLINICAL DECISION MAKER

While working on the Arthroplasty service, a learner must become proficient in the following areas:

1. Obtain appropriate history and perform physical examination and be competent in assessing the following:
 - a. Anatomy of all appropriate joints.
 - b. Gait
 - c. Differentiate between normal and abnormal joint arc of motion.
 - d. Special tests.
 - e. Deformity.
 - f. Leg lengths.
 - g. Stability.
 - h. Neurovascular status.
2. Describe, order and interpret the plain radiographs for joint conditions and be knowledgeable in the following:
 - a. Different types of arthritis.
 - b. Bone loss and deficiency.
 - c. Deformity.
3. Indications and Contraindications
4. Biomechanics
5. Materials
 - a. Metals
 - b. Polyethylene
 - c. Ceramics
 - d. Composite materials
6. Fixation
 - a. Polymethylmethacrylate
 - b. Porous metals
 - c. Calcium phosphate ceramics
 - d. Supplemental fixation

7. Complications
 - a. Infection
 - b. Failure
 - i. Fixation
 - ii. Materials
 - iii. Bone
 - c. Thromboembolic disease
 - d. Dislocation
 - e. Hematoma/bleeding
 - f. Neurovascular injury
8. Results
9. Revision
10. Salvage

II. COMMUNICATOR

General Requirements

1. Establish therapeutic relationships with patients/families
2. Obtain and synthesize relevant history from patients/families/communities
3. Listen effectively
4. Discuss appropriate information with patients/families and the health care team

Specific Requirements

1. Effectively communicate with patients/families and members of the team
2. Effectively communicate important aspects of patient care to the multidisciplinary team and clearly/concisely summarize the patient care plan
3. Understand and empathize with the emotion surrounding orthopedic disease and injury
4. Appreciate the dynamics of a traumatized family
5. Address patients' concerns with empathy
6. Understand the concerns that patients have with loss of control, self-worth and personal dignity
7. Explain details of medical condition and therapy in understandable terms
8. Appreciate the fact that interpreters may be required for ethnic groups

III. COLLABORATOR

General Requirements

1. Consult effectively with other physicians and health care professionals
2. Contribute effectively to other interdisciplinary team activities

Specific Requirements

1. Understand the roles of other health care professionals
2. Seek the advice of other members of the health care team
3. Organize/lead team meetings to discuss problems in investigation/therapy (multidisciplinary conference)
4. Consult regularly and reasonably with other physicians and members of the health care team
5. Share knowledge effectively to formulate a health care plan

IV. LEADER

General Requirements

1. Utilize resources effectively to balance patient care, learning needs and outside activities
2. Allocate finite health care resources wisely
3. Work effectively and efficiently in a health care organization
4. Utilize information technology to optimize patient care, life-long learning and other activities

Specific Requirements

1. Participate effectively in resource planning for the orthopedic patient
2. Participate in discharge planning

V. HEALTH ADVOCATE

General Requirements

1. Identify the important determinants of health affecting patients
2. Contribute effectively to improve the health of patients, their families and communities
3. Recognize and respond to those issues where advocacy is appropriate

Specific Requirements

1. Demonstrate knowledge of the epidemiology of orthopedic disease and injury
2. Advise patients/families of the role of environmental factors in orthopedic disease and injury
3. Promote prevention of orthopedic disease and injury
4. Outline community resources available to patients/families dealing with orthopedic disease and injury:
 - a. social work
 - b. physiotherapy
 - c. occupational therapy
 - d. dietary/nutritional services
 - e. prosthetic support services
 - f. pain and symptom management
 - g. palliative care
5. Identify the possibility of non-accidental injury (physical abuse) and make the appropriate referrals to prevent further harm

VI. SCHOLAR

General Requirements

1. Develop, implement and monitor a personal continuing education strategy
2. Critically appraise sources of medical information
3. Facilitate learning of patients, house staff and other health professionals
4. Contribute to development of new knowledge

Specific Requirements

1. Question current practice
2. Develop a teaching contract that reflects the multidisciplinary approach to orthopedic surgery
3. Critically assess the orthopedic literature as it pertains to diagnosis, investigation, treatment and follow-up:

- a. outline types of trial design
- b. define the relevance of statistical significance and how it is determined
- c. define type I and type II errors and their relevance
- 4. Disseminate relevant knowledge to other health care providers

VII. PROFESSIONAL

General Requirements

- 1. Deliver the highest quality care with integrity, honesty and compassion
- 2. Exhibit appropriate personal and interpersonal professional behavior
- 3. Practice medicine ethically consistent with the obligations of a physician

Specific Requirements

- 1. Understand that professionalism requires ongoing CME
- 2. Maintain a professional attitude consistent with a practicing orthopedic surgeon
- 3. Sympathize with the needs of the patient even when they conflict with medical advice
- 4. Recognize the requirement of patient confidentiality
- 5. Understand ethical responsibilities as they relate to the orthopedic patient
- 6. Practice in an ethical, honest and forthright manner
- 7. Respond to conflict constructively and with compassion